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## REGION AND REGIONALIZATION

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*Andrey Shastitko*

### COMPETITIVENESS OF THE REGION: CONTENT, FACTORS, POLICIES

*The article describes a framework conception of regional competitiveness. The notion of regional competitiveness as well as approaches to the classification of competitiveness factors are considered in detail. The author elaborates a set of indicators of regional competitiveness. The article also discusses three groups of factors which can influence the competitiveness of any region.*

**Key words:** region, competition, competitiveness, location based competition, exogenous factors of regional competitiveness, endogenous factors of regional competitiveness.

Competitiveness is a popular term which is used by economists, officials, and policy-makers to justify actions that should be implemented in order to improve the status of an object relative to other objects having similar characteristics, in terms of its performance compared to other objects of the same class. In particular, industrial policy is seen as a set of activities aimed at improving competitiveness of certain categories of producers (e. g. national producers), or goods (services)<sup>1</sup> manufactured in the country (region).

However, despite the widespread use of the concept of competitiveness in general and that of competitiveness of the region in particular, there are often quite serious difficulties with offering an operational concept of competitiveness, especially when it concerns the content of the term.

The phenomenon of regional competitiveness implies a complex of characteristics, each of which is essential for understanding this phenomenon as a whole. Indeed, the phenomenon of competitiveness in the socio-economic

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<sup>1</sup> We will not consider the criteria of belonging to the category of domestic producers. We will only note that it is not a trivial issue, because the mere fact that goods and services are produced on a specific territory (in this case in Russia or the territory of a region) is not a sufficient reason to qualify it as a domestic or regional producer.

system can hardly be considered outside the relevant context of interaction between the actors, without defining the characteristics of competitiveness, or without identification of the necessary criteria to assess the level of competitiveness or its modifications. These aspects are closely intertwined, that is why an orderly presentation of their conjunction is essential for the formation of a unified vision of competitiveness of any subject in general (including companies, organizations, national economy, etc.), and the region in particular.

The main goal of this article is to formulate a framework of the concept of regional competitiveness. The “framework” of the concept implies, first and foremost, a number of general issues of regional competitiveness, which should be specified in relation to a specific territory (a region or a group of regions).

Achieving the goal involves a set of tasks, including:

- identification and description of the key components of the theory of competition by location;
- elaboration of the content of regional competitiveness as an analytical tool necessary to define a strategy for regional development;
- identification of the factors conditioning the competitiveness of a region;
- elaboration of regional competitiveness indicators;
- use of non-quantification characteristics of the region's competitiveness.

We will assume that a region is a relatively separate area with a set of characteristics significant in terms of economic exchanges in general, and entrepreneurship, in particular, but at the same time not possessing such attributes of national sovereignty as its own currency, armed forces, foreign policy and, therefore, not providing services such as: national security and macroeconomic stability. Isolation of the territory may be manifested in different forms, ranging from the existence of customs borders, either de facto or de jure, to simply registration of a company as a legal entity in a given territory. It is necessary to emphasize that regions may differ in some individual characteristics of their institutional environment, for instance the capacity of regional authorities to establish formal rules and mechanisms and to ensure compliance with all these rules, both formal and informal.

## 1. Location-based competition

The understanding of the competitiveness of the region, as one of its important features, is largely dependent on the content of the notion of competition because competitiveness virtually refers to the subject and/or the result of a certain activity, **while competition is a situation, or a process where this competitiveness occurs (and/or is formed)** irrespective of the category of subjects, which participants of competition belong to (business entities, national economies, regions, etc.)

In other words, competitiveness occurs when a subject, whose competitiveness is being characterized, is in a privileged position vis-à-vis other actors/ subjects or at least does not worsen its position in relation to other actors (competitors). That is why, it is important to understand that there is a

conjunction between the notion of competition and competitiveness, and there is a separate issue of identification (including a quantitative one) of the degree of preponderance through a set of indicators.

That is why understanding the content and possible forms of competition creates an essential condition for giving a systemic definition and study of the problem of competitiveness. Before we touch upon various types of competition, it should be noted that the understanding of competition is also varied. However, our task does not include a detailed analysis of the content of competition and major consequences that the chosen definition implies. We will focus on two approaches to defining competition: the static and dynamic ones.

In accordance with the static approach, **competition is a situation in which achievement of the goal by one subject is at the same time effectively limited by the competitor's desire to achieve the same goal.** To put it otherwise, the key feature of static competition is inaccessibility of the same "benefit" for several subjects simultaneously. Though availability of the same benefit for different subjects is possible if the benefit is public (one of the distinguishing features is absence of competition in consumption. For example, the emergence of additional viewers of fireworks does not lead to inaccessibility of the fireworks as a spectacle for others<sup>2</sup>).

In accordance with the dynamic approach, **competition is a process of discovering new opportunities for the use of the already known resources, as well as a process of using or creating new resources [4].** Since the discovery of new opportunities is often associated with the use of information and exchange of knowledge in society, competition can also be seen as a process of identifying and sharing knowledge and information about quality, and about alternatives to using various resources in various possible variants of their use [1, p. 316].

Unless it is specified otherwise, in future we will use the term competition in its static understanding, when dealing with the problem of competitiveness of the region without special emphasis on the composition and change of structure of the political market at the regional level. We will only note that the functioning of the political market may lead to both widening and narrowing of opportunities for entrepreneurial activities which are focused on creating value rather than its redistribution or destruction. It does not follow from what has been said that the dynamic approach to the definition of competition is inapplicable to the situation of interaction of economic agents on the goods and service market while determining competitiveness of the object under research.

Forms of competition, in the static sense, are manifold. In particular, it is well known that economic theory distinguishes between the following types of competition: price and non-price competition, fair and unfair, current and intertemporal, product and location, *ex ante* and *ex post*, for the market and in the market, as well as actual and potential ones.

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<sup>2</sup> Strictly speaking, this benefit can be attributed to the «transferred» to public, when after a certain point the marginal cost of providing this service begins growing.

Both the content of competition and competitive characteristics largely depend on the properties of the product, which is the result of performance of a corresponding subject, a party of competition. For example, if a product (for example, a new computer programme) can easily cross the border but registering the very fact of its production in the country requires significant costs, then other factors of regional competitiveness such as, for example, quality of life of the product's manufacturer will be of importance.

If we regard competition between economic agents in the market as a reference point and assume that the agents belong to the same market (in terms of their product and geographic boundaries), which actually means identical location, then this factor has no independent importance from the point of view of competition. Weakening of this assumptions leads to the following conclusions:

(1) location may affect the conditions of actual competition (and, consequently, the competitiveness of the producer);

(2) location should be taken into account when assessing potential competition and corresponding potential competitiveness.

The second point is important in case the actors do not compete directly as they work on different markets, but the parameters of their activities, as well as the results, are comparable. This mechanism is known as yardstick competition [5].

Economic activity in general and entrepreneurship in particular, occur at a certain time and in a certain place. Territorial identity, when the same entity can not be located in different areas, or in other words, when the same legal entity is registered in different regions and can not simultaneously carry out the same activity in different regions, is very important because it is a basis of location-based competition.

In its pure form, location-based competition will operate as follows. Let's assume that there are some isolated areas among which there are some randomly distributed economic unit creating a certain value. Each economic unit is the centre of decision-making, and the decisions reflect the interests of the entity controlling the unit.

If the terms of interaction with other economic units and between this unit and the entity in control of the territory are less favourable than elsewhere, then for the decision maker in the given economic unit there emerge incentives for the relocation of its economic activity to another territory. All other things being equal, *ceteris paribus*, the more favourable the conditions of entrepreneurial activity in the region, the more entrepreneurs would run their business in the region. Moreover, it is important to note that this is not necessarily true only speaking about the transfer of a business from one region to another. Competition can also take place indirectly when business develops as a result of decisions made by those who live in this or that region and decide to set up their own business<sup>3</sup>. As a result, the number of

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<sup>3</sup> It is important to make one reservation: we do not consider specific issues of specialization of a territory in production of a certain class of products; the default assumption is that comparative advantages are important, but are not a sole determinant of economic profile of the territory.

business registration and the number of businesses per a fixed number of people (usually per 1000) grow.

It is clear that for effective location-based competition, many conditions must be fulfilled. But the most important one is that the expected net profit from the transfer from one territory to another (taking into account the discount) must not be less than the cost of business transfer, that is, the costs to be paid by the specified entity to move the business from one territory to another.

The costs of business transfer are crucial to ensure the effectiveness of competition *ex post*, i.e., for those businesses that are already operating in the territory of one of the regions. The effectiveness of competition *ex post* depends largely on the development level of the markets infrastructure, including the markets for the buying/selling of businesses (especially when this is a small and medium size business, which practically does not use stock exchange mechanisms [3]), housing and other real estate, and labour. The functioning of infrastructure markets involves a physical movement of economic agents in territorial space (in economic theory, this kind of movement, in the context of competition, is called “voting with one’s feet”).

In addition, consideration should be given to two more options for a business — switching to the shadow scheme or abandoning business all together. In this case, the region's competitiveness as such should be separated from the competitiveness of formal institutions, regulating the activities of economic agents, and the competitiveness of similar institutions that regulate the same activity but are outside the framework of government regulations and security of property rights.

We would also like to emphasize that at the categorial level, there should be a distinction between attractiveness (competitiveness) of the region for entrepreneurship and that for living (free time consumption). The better the transportation infrastructure, the higher the differentiation of the neighbouring regions in their living conditions (the cost and quality of housing, environment, etc.), the more actual the distinction becomes.

## 2. Competitiveness of the territory

Understanding the notion of the competitiveness of the territory is largely dependent on the context it is used in. Obviously, while studying interregional links, first and foremost, there emerges a thesis of international, interregional and, in general, inter-territorial trade. From this perspective, the fundamental rationale behind the direction of the movement of goods and, respectively, specialization is comparative advantages resulting from different opportunities, alternative costs of goods production on these territories.

For all the complexity of modern theory of international trade, the basic idea is simple. Territories (countries, regions) can, technically speaking, produce the same (or quite intersecting) set of goods. However, an increase in the volume of production of the same product will be directly related to different levels of reduction in the production of other goods for different countries.

However, one should take into account two important considerations which are crucial for understanding the content of the region's competitiveness and conditions for its raising.

Firstly, in the theoretical models comparative advantages are initial conditions for explaining the direction and scale of trade between territories. However, in practice, identification of these comparative advantages in a complex, diversified economy is a separate issue. Accordingly, the more precise the mechanism with the help of which the comparative advantage is revealed, the higher the competitiveness of the territory is. However, one should admit that in bilateral trade, inadequacy in identifying the comparative advantage may have a negative impact on trade partners.

Secondly, one can imagine a fairly unique, but yet an important case when two countries' alternative costs of production of a fixed set of goods are the same. The differences are only in the direct costs associated with productivity factors. Does this mean that the two countries (or two regions) are equally competitive? It is clear that substantial differences in productivity come from the characteristics of the regions, for example, from the regulatory regime.

**Competitiveness is a relative (comparative) characteristic of the subject of actual or potential competition**, regardless of the characteristics of competition. As can be seen from the previous statement, it is necessary to distinguish between competitiveness of an individual business entity (industry) and the region's competitiveness. In terms of the market functioning scheme, competitiveness of the region derives from the competitiveness of its enterprises. The higher (lower) the competitiveness of enterprises, other things being equal, the higher (lower) the region's competitiveness is. In its turn, in the first approximation, competitiveness of an enterprise is expressed in terms of how efficiently the production factors are used and what the prices of these factors are. However, it should be born in mind that companies may belong to different sectors of economy; they may be different in size, and in their organizational and legal forms. That is why, the specified ratio is more complex in its character.

In addition, there is no uniform understanding of the competitiveness of a separate business, industry or national economy in economic literature. In Yassin and Yakovleva's [7, p. 8] works there is a working definition of the competitiveness of goods and services, which is the "ability to sell them [goods and services — A. Sh.] at market prices getting normal profit". By default, it is assumed that the long term survival of a business in the market is possible only if its average total costs are not lower than the market price, which corresponds to the conditions of equilibrium in a competitive market.

However, as it was already indicated above, the static approach to the definition of competition is not the only possible one. In principle, there are five basic approaches to resolve the issue of operationalization of the concept of competitiveness<sup>4</sup>:

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<sup>4</sup> These results were obtained based on a study carried out by the "Bureau of Economic Analysis" Foundation in 2001.

1. A simple approach based on a comparison of certain traditional separate indirect indicators of productivity and competitiveness at the level of an industry and national economies;
2. An approach based on the M. Porter's competitive forces model identifying competitive advantages of national economies;
3. An approach based on an assessment of inefficiency of the firm (compared with best current practices) and a construction of a regression model so as to explain the reasons for such inefficiency (the OCRA model);
4. Hypotheses about the directions of labour specialization as a factor in improving the competitiveness of firms.
5. An approach based on the calculation of competitiveness indicators for the industry/company performance through the competitiveness of goods.

It should be noted that the names/terms used here, are not universally accepted but reflect the essence, the main characteristics of the described methodology.

The task of elaborating the concept of the region's competitiveness, despite the relative simplicity of the general idea that can be laid at the foundation of this concept, in fact may prove much more difficult than competitiveness of a branch of industry or a business.

Competitive location, in the first approximation, actually means that the region is competitive; it can be viewed through the prism of contractual relationship between an entrepreneur (investor) and regional authorities. This does not mean that such a contract must exist explicitly. Typically, there is a hidden, implicit contract, which, however, can be reconstructed with the help of the tools of economic analysis.

Since direct investments, if we do not take into account bank loans, are subject to greater or lesser territorial fixedness, especially when it comes to the construction of buildings, as well as to installing equipment which is difficult to transport distance-wise, the principal concern for the investor is not only the proposed conditions, but also guarantees that (a) they will not change and (b) that the alleged conditions are consistent with the actual conditions (rules and mechanisms to ensure compliance with them will be consistent with each other). In other words, the task of regional authorities is to ensure credibility of their commitments. Moreover, *de facto* the right to assess reliability of this kind of promises is granted to business community.

Furthermore, this reliability consists of at least two parts. The first relates to the reliability of the commitments of the regional authorities to create such conditions, whereas the second is the reliability of commitments of the authorities at a higher level, which, in terms of the classification factors of competitiveness, can be attributed to exogenous ones.

However, as in any contractual relationship, the problems arising from the formulation of commitments and ensuring compliance with them are reciprocal. That is why the fulfilment of any agreement implies that the reliability of commitments concerning the proposed entrepreneurial activity is complemented by measures of control and effective restrictions on misconduct and violations of the rules likely to be committed by economic entities.



Competitiveness of the region is closely intertwined with its economic development, so the relation between the two phenomena requires special attention.

If competition between regions for attracting business is aimed at creating value, then economic development can be regarded as a consequence of this kind of competition. Consequently, competitiveness and economic development of the region are positively linked.

A distinction should be drawn between economic development and economic growth, due to possible changes in the resulting macro-economic indicators in the first place, and the gross regional product, without innovation as a key feature of economic development. In other words, economic growth is only possible if there is an increasing the amount of resources and they are efficiently used, while technology may remain unchanged, so may the assortment range of products, acting organizational forms, a set of resources, as well as the market composition of goods and services that the regions use.

Competitiveness, defined as survival of a business entity on the market, is not linked explicitly to efficiency (at least in the short term perspective). This may be due to the fact that business actors, competing with each other, may have fundamentally different stocks of resources.

Let us consider in more detail the relationship between competitiveness and economic development. At first glance, the relationship between competitiveness and economic development is simple and unambiguous: the more competitive the region is, the faster its economic development and vice versa — the faster the economic development, the higher the competitiveness. However, when analyzing the relationship between the two phenomena, a number of circumstances should be taken into account.

1. The definition of competitiveness, as a rule, implies a correlation of one entity and the other at the same point of time because competition takes place in real time. In its turn, economic development is determined by a correlation of successive emerging states of the same object. One exception is intertemporal competition, when a business entity actually competes with itself by supplying the market with durable goods.

2. It is also possible to define competitiveness of producers outside the context of economic development as situations in which, according to J. Schumpeter, there are no new combinations which are being important signs of economic development. It is clear that this is only a theoretical abstraction which shows that one phenomenon (competitiveness) is not identical to the other (economic development).

3. However, an increase of competitiveness is related in an even more complex way with economic development, because the way how to raise competitiveness is of great significance. If it involves the creation of incentives for economic agents to seek new ways of productive and efficient use of the existing limited resources, and/or discover new resources, in this case the factors enhancing competitiveness also act as economic development factors. But if an increase of competitiveness of business entities, as well as territories, is due to the industrial policy, resulting in a meaningful redistribution of scarce resources in favour of certain categories of industries or

producers, then as a consequence of distortion of incentives, these factors, which are seemingly increasing the competitiveness of goods, do not create sufficient incentives for economic development.

The main conclusion is that the content of economic development of the region, considered in the context of competition between regions in the field of business development and focused on creating value, and the content of competitiveness of the region largely overlap.

### 3. Factors of regional competitiveness

If competitiveness of the region is a relative characteristic of a territory, defined in the context of competition as a certain process, then circumstances, actions of people, or groups of people, who have an impact on the specified characteristics of the region will be defined as factors of competitiveness.

Taking into account a close interconnection and, at the same time, some ambiguity in the correlation between economic development and the competitiveness of the region, it should be noted that the relation between them, described in the previous section, is reflected in the factors of economic development and competitiveness, respectively.

The classification of economic development factors of the region was carried out by L. A. Grigoriev and Y. Urozhaeva [2]. In accordance with their classification, three groups of factors are identified: “natural” (objective), factors external to the region and institutional ones. Accepting the basis of the proposed classification, we would like to point out, however, that the above mentioned classification does not meet the requirements of the theoretical classification, since the classification grounds are not clearly defined and many factors within the groups may partly overlap. This fact will be taken into account in the further discussion of the issue of the factors of the competitiveness of the region. Since the region’s competitiveness (its increase or sustaining its high level) is the goal of socio-economic policies, there is also a practical question of how this goal can be achieved.

We can formulate several working criteria for a classification of the factors of the region’s competitiveness:

- (1) the significance of the factor;
- (2) the dependence of the factor on decisions taken by actors in the socio-economic policies in the region;
- (3) duration of the factor (short, medium and long term ones).

The following sections focus on the exogenous and endogenous factors of competitiveness, i. e. factors of the second group. That is why, in this section we will briefly comment on two other groups as well. In terms of their impact on the level of competitiveness, the factors are not equal. For example, if one considers the change in GDP as a reflection of entrepreneurial activity, then among such factors as human capital, macroeconomic policy, and the quality of institutions the latter is most significant<sup>5</sup> [9]. By insti-

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<sup>5</sup> Note that some researchers point to interdependence of macroeconomic policy and quality of institutions.

tutions we mean rules (formal and informal), as well as mechanisms to ensure compliance with them, including arrangements relating to the application of sanctions to violators. Accordingly, if one compares the relative dynamics of the GDP during a reasonably long period of time, it will broadly reflect the quality of institutions.

**Exogenous factors are such factors of regional competitiveness, any change in which is not a direct consequence of economic decisions and actions, taken at the level of the region.**

Exogenous factors include, first of all, institutional conditions of economic activity reflected in the federal laws; they are connected to mechanisms ensuring compliance with these laws through federal institutions and their territorial branches. There is only one limitation: if this region is not dominant in terms of creating system rules.

In this context decentralization and deregulation of economy can be important factors of enhancing competitiveness of peripheral regions, when the right to make meaningful decisions and the corresponding tax sources are delegated to the level of the region.

Integration processes in economies, that create a need for decisions related to business development at a larger scope than that of one particular region, are of great importance too. First of all, it refers to large integrated business groups (IBG). On the one hand, decisions concerning IBGs affect many regions at once, so the influence on the behaviour of any IBG, which presupposes reaching a certain “critical mass”, involves problems of a collective action of the regions concerned. However, as a rule, IBGs make strategic decisions without any interaction with a group of interested regions.

At the same time, the number of IBGs whose interests are represented in the region can be an important factor, just as important as the location of the headquarters. As it was already mentioned, the presence of a large number of IBGs in the region greatly diminishes the problem of dependence of regional decisions on the interests of one separate IBG, particularly if IBGs are heterogeneous.

Another group of exogenous factors is associated with the state of key resources before business entities, operating in the region and affecting its competitiveness, make a decision. This is due to the fact that the history of the region is important; it makes an impact on the competitiveness of different forms of accumulated capital — human, physical and social, if the latter implies a set of institutions.

Finally, another group of factors involves changes which are exogenous both, in relation to the actions of the federal government and in relation to the business behaviour of a vast majority of IBGs.

In particular, we are speaking about changes in the world commodity markets, as they are an important component of production in a corresponding region and export from the country in general. For Russia, this is, above all, energy (oil and gas), as well as products of ferrous and nonferrous metallurgy.

However, it should be understood that within a fairly narrow food segment there is a possibility of influence of the players’ decisions in the national economy, in terms of economic exchanges across the world market, which in its turn could have the opposite effect on the competitiveness of a region.

Thus, exogenous factors include:

- (1) decisions of the federal government (including decision to devalue the national currency, decision about privatization or nationalization of certain objects);
- (2) decisions made in integrated business groups, whose activities are carried out simultaneously in many regions;
- (3) accumulated characteristics of production factors (fixed capital stock, human capital, natural resources, organizational capital);
- (4) fluctuations in world commodity markets.

All the factors listed above are not exogenous by definition if, for example, a region itself or together with other regions can influence the decision of important issues for the region (e.g., elaboration of the regional industrial policy).

**Endogenous factors are such factors of regional competitiveness, the change of value of which is a direct consequence of decisions and actions of the economic policy at the level of the region.**

One of the most important endogenous factors of the competitiveness of the region is socio-economic policy of the authorities that affects the price, which economic agents have to pay for services provided by the regional authorities (institutional infrastructure, real infrastructure) and the quality of these services. It has to be noted that a reduction in prices in the form of easing the tax burden can be considered as a factor enhancing competitiveness of the region, which, nevertheless, can be outweighed by other factors; firstly, due to poor quality of services, especially public benefits, and secondly, due to diminishing competitiveness in the future (a decrease in regional public finance).

There is another aspect of the influence of socio-economic policies on the region's competitiveness. Most clearly it can be seen in the ratio of industrial and competition policies. **Industrial policy is a redistribution of resources targeted at specific industries or groups of companies. Competition policy aims at creating incentives for economic agents in terms of generating innovation (technological, product, and organizational) by means of creation and maintenance of competitive conditions in the target markets.**

Strictly speaking, the establishment of formal institutions is the only factor which the authorities can control. This factor affects the competitiveness of the region through incentives for those economic agents who make decisions related to the creation of value, and also (if it would be preferable), redistribution of value or even its destruction. From this perspective, **location competitiveness is, above all, competitiveness of institutions (national and regional).**

In accordance with the approach proposed by Yassin and Yakovleva [7, p. 8], the competitiveness of institutions is the compliance of formal and non-formal institutions in the country (laws, norms and traditions of behaviour of the authorities, use of power, degree of freedom, the radius of trust) with the requirements of production of competitive goods and services. In connection with the given definition it is important to say the following:

1. One can speak about not only the competitiveness of national institutions, but also regional institutions competitiveness;

2. It is necessary to confine to formal and informal rules governing the interaction between economic agents, as well as the interaction of economic agents with state authorities;

3. Mechanisms ensuring compliance with the established rules should be regarded as a special component of institutions. Rules for permitted (or prohibited) actions should be consistent with best practices. But this is not enough for the elaboration of adequate incentives.

#### 4. Indicators of regional competitiveness

The effect of the factors of regional competitiveness determine the characteristics of the region, which were described in the second section in the context of determining the quality characteristics that affect the incentives of individuals taking economic decisions.

However, in order to operationalize this conception, it is important to identify indicators of competitiveness.

As there are many factors as well indicators of competitiveness, it is necessary to streamline them and analyze their relation to one another. The first subsection deals with specific indicators of competitiveness which reflect some aspects of the business agent's performance. The second subsection deals with the problem of formulating a generalized indicator of competitiveness. The third subsection identifies indicators associated with competitiveness.

**Specific indicator is an indicator of the region's competitiveness, which reflects a subset of location competition aspects.**

In accordance with the existing standard approaches used to quantify competitiveness, one can single out the following indicators: (1) productivity level (2) labour cost per production unit, (3) the coefficient of identified comparative advantages.

If the theory of international trade is taken as a starting point, then the key indicator is associated with the comparative advantages of the country (region). In research, the coefficient of identified comparative advantages is used; it is calculated as the ratio of the share of the country (region) in the world (national) market of the product (export) to the share of the country's imports of this product (import from other regions)<sup>6</sup> [7, p. 16]).

Mathematically, this coefficient can be represented as follows [8]:

$$RCA_i = (X_i / \Sigma X_i - M_i / \Sigma M_i) \cdot 100,$$

where  $RCA_i$  is the coefficient of the identified comparative advantages which, theoretically, can change from -100 to 100,  $X_i / \Sigma X_i$  is the country's share of world export,  $M_i / \Sigma M_i$  is the country's share of world import.

It should be noted at once that this indicator is not practicable for regions for lack of adequate statistics on the movement of goods between regions (without crossing national borders).

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<sup>6</sup> Adjustment to the definition of the regional component is presented by the author of the article.

Among the indicators that reflect individual aspects of the region's competitiveness one can also take into account direct investments, changing numbers of small enterprises per 1000 inhabitants (adjusted for the proportion of non-operating SMEs), actually reflecting the intensity of the business registration process.

The greater the number of SMEs per capita, given all other conditions being equal, the more competitive the region is. In this thesis, the principle of "other conditions being equal" is essential. It is clear that "traces" of regional competitiveness can also be found in retrospect if we assume that the dynamics of key indicators is the result of location-based competition. This applies, above all, to such indicators as GRP, including GDP per capita, current investments and others.

Among the most obvious indicators of competitiveness to be applied is the amount of added value per worker. As the impact of economic activity is estimated through added value, thus the more value is added in the region, *ceteris paribus*, the more competitive the business operating in the region is, and, consequently, the more competitive the region is (if one uses the logic of competition by location in association with the region's competitiveness on the one hand, and the correlation between the region's competitiveness and competitiveness of the region's products, manufactured in the territory, on the other). However, in most cases data on added value is not available.

**Generalized indicator of competitiveness is the one that takes into account all major aspects of competitiveness.** The generalized indicator of competitiveness is unlikely to have any dimension: it is, probably, a numeral as is, for example, the indicator of elasticity. Approaches to the calculation mechanism of this numeral may be different.

1. One option: one can calculate the average fraction for the entire set of major factors affecting competitiveness, assessing the significance and role of each factor. If the value of this indicator for a particular region is above average, then the region is competitive.

2. Another option: choosing, as a starting point, the best value for the entire set and comparing it with specific values obtained for the region. In this case the value can not be greater than one (1), although it is possible that this value will be equal to 1 (for the leader region).

3. The third option: the reference point is maximum possible values of the indicators, whereas the actual values for each region indicate deviations due to the untapped reserves. In this case, the standard value would be less than one (1) for all regions (including the leader region).

Among important indicators and characteristics of the region (which are related to its competitiveness, but do not exhaust its full content, though they are used as stand-alone characteristics of this region), one can point out investment attractiveness of the region and the regional budgets reflected in the ratings of paying capacity.

In the comparative assessment of any region, various kinds of ratings are often used as they can help sort out the regions according to the established criteria.

It should be noted that investment attractiveness ratings may indicate the specialization of the region, if we assume that in the world markets there are relatively stable favourable conditions for goods that are consistent with the specialization of the region. That is why, there can be a positive correlation

between the level of investment attractiveness and competitiveness of the region but it is not as strong as it may seem at first glance.

As the region is the subject of location-based competition, the state of the regional budget is very important, because it reflects not only the current but also future regime of entrepreneurial activity in the region. Indeed, if the budget of the region is made with a significant deficit, and is financed through borrowings in the financial market and financing of medium- and long-term programmes is implemented through the “short” money, then in terms of attractiveness, *ceteris paribus*, the region will lose.

## **5. Enhancing competitiveness of the region with the help of measures of socioeconomic policies at the regional level**

Understanding the content of competitiveness in positive terms is of great importance for the development of socio-economic policies, both at the level of economy as a whole and at the level of the region, given a set of exogenous and endogenous factors (variables). Interdependence of various aspects of competitiveness with social and economic policy has many important aspects, two of which we will pay special attention to.

There are three groups of tools, which can affect competitiveness of the region. They are applicable to both national governments as well as regional ones.

1. General measures to strengthen the regional economy and its position in national and world economy, leading eventually to an increase of competitiveness of firms and their products. Such measures shall provide the basis for competitiveness for national economy and that of the region. These general measures include, first and foremost, institutional framework for economic activities, related to the formation of business environment, regardless of the expected gains of specific groups of businesses.

2. State aid in the form of direct support to companies in their export activities (grants, tax incentives, exemption from import duties on raw materials, information support of export activities). For the regional government this direction is less accessible than for the federal government (there is no way to exempt from import duties on raw materials), as well as it involves the risk of applying to them the norms of the federal law “On protection of competition” in the event their activity restricts competition.

3. Measures aimed at creating demand for regional producers in other regions, as well as foreign markets (exhibitions, establishment abroad or in other regions trade and information centres, etc.)

These measures are not completely equivalent in terms of setting appropriate incentives. However, they form a space for choice both in normal conditions and in the conditions of a crisis. In this regard it should be noted that the region's competitiveness will largely depend on the balance of measures aimed at improving its competitiveness.

Given the fact that the competitiveness of the region derives from the competitiveness of products manufactured in its territory, identification of strategies for improving the region's competitiveness in the context of improving the competitiveness of the industries is of vital importance. It is clear that the impact of efforts aimed at improving competitiveness of indus-

tries will be different. Moreover, it is understandable that it is rational to resolve issues related to enhancement of competitiveness of the region, focusing on enhancement of competitiveness of the industry with a bigger competitiveness potential.

In this perspective there emerges a separate issue of a group of industries, both in terms of potential impact of improving competitiveness and in terms of tools that can be used to enhance this competitiveness.

Problems with the use of indicators of competitiveness in quality control actually minimize the risk of manipulating them. Let's try to explain the essence of the problem. Let's assume that all players use the assumption that the proposed indicators are adequate, in terms of comparative assessment of the region (its competitiveness).

If the welfare of a player depends on the level or the dynamics of this indicator, there is a stimulus for a corresponding change of the indicator. Moreover, the actors will look for ways to achieve this goal with minimum expenditures. For example, if the dynamics of labour productivity is taken as a control indicator, it might, other things being equal, encourage the use of labour-saving, capital-intensive technologies. However, in the circumstances where a relatively cheap labour is a competitive advantage, in terms of resources, the choice of this indicator may lead to reduced competitiveness (at least in some areas).

The assessment of competitiveness of the region involves a necessity to take into account factors which are impossible or rather difficult to quantify.

This is especially true for factors that are actually very complicated, in terms of structure. Among them is the quality of the institutional environment at the regional level, including not only the content of laws, but also mechanisms ensuring compliance with them.

In this respect, so as to solve this issue, it is necessary to pay more attention to the characteristics of the institutional framework concerning the use of limited resources, paying special attention to the significance of each of the identified characteristics.

Understanding the above-mentioned issue will ensure more caution when applying all quantitative estimates of all changes in competitiveness and, on the one hand, will encourage seeking methods of quantification for "non-quantifiable", for the time being, factors, on the other hand.

## Conclusions

The presented material on regional competitiveness provides the following conclusions:

1. Competitiveness of the region is an important component in explaining both the level of economic development and the living standards in the region. That is why improving competitiveness of the region is an important task of economic policy at both the federal and regional levels;
2. Currently there is no generally accepted, rigorous and operational definition of the term "competitiveness", applicable to all cases of empirical research in this area. This concerns the definition of the term in relation to specific products or manufacturers, as well as to individual regions.
3. However, competitiveness in the long run should be considered through the prism of setting incentives for decision makers to seek new ar-



eas, to use the already known resources, as well as to identify unknown *ex ante* resources of creating added value. This applies to business entities and to those decision makers who determine the quality of the institutional environment in the territory. This approach is based on interdependence of the notions “competition” and “competitiveness”.

4. Competitiveness of the region depends on many factors which can be classified. In terms of decision-making process the most important groups are endogenous and exogenous factors of competitiveness.

5. In applied research a variety of techniques are used to assess competitiveness on the basis of designing a set of indicators, each of which has comparative advantages and shortcomings. Among the most common are such indicators as a comparative advantage, productivity and cost of labour per unit of output. The choice of methods for assessing competitiveness depends on the objective and accessible information. It should be born in mind that available information is not always significant, and important information is not always available. The ideal method applicable to all cases of assessment of competitiveness has not been identified yet.

6. It is necessary to distinguish between competitiveness of manufacturers in the industry and market. If competitiveness of manufacturers in the market is directly linked to the level of unit costs, competitiveness within the industry (manufacturing heterogeneous and not always easily interchangeable commodities) is linked to an additional factor — the choice of specialization which adequately reflects the manufacturer’s comparative advantage. In its turn competitiveness of the region implies not only the cost factor but also specific institutional conditions of production, which should lead to differentiation of the producer’s costs not only because of natural comparative advantages or benefits in the organization, but because of differences in costs associated with compliance with the mandatory requirements established by the State (at the federal and regional levels).

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